PTO/SB/08B (08-00)

Approved for use through 10/31/2002. OMB 0651-0031

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Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known **Application Number** 10/822,345 Filing Date April 12, 2004 **First Named Inventor** Meng Tao <del>2812</del> 2813 **Group Art Unit** Not Yot Assigned Colleen E. Rodgers **Examiner Name** 

(use as many sheets as necessary) Attorney Docket Number 124263-1019 of 2 Sheet

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²				
(CP)		R.M. TROMP, R.J. HAMERS, and J.E. DEMUTH, Si(001) dimmer structure observed with scanning tunneling microscopy, Phys. Rev. Lett., 1985, 1303, 55					
æ		E. KAXIRAS, Semiconductor-surface restoration by valence-mending absorbates: Application to Si(100):S and Si(100):Se, Physical Review B, 1991, 6324, 43					
@		H. METZNER, TH. HALN, and JH. BREMER, Structure of sulfur-terminated silicon surfaces, Surf. Sci., 1997, 377-371-374, 379,					
æ		J.J. BOLAND, Structure of the H-saturated Si(100) surface, Phys. Rev. Lett., 1990, 3325, 65					
(P)		M. TAO and L.P. HUNT, The thermodynamic behavior of the Si-H system and its role in Si-CVD from SiH <sub>4</sub> , J. Electrochem. Soc., 1992, 806, 139					
(W		J.E. NORTHRUP, Structure of Si(100)H: Dependence on the H chemical potential, Phys. Rev. B, 1991, 1419, 44					
@		B.S. MEYERSON, F.J. HIMPSEL, and K. J. URAM, Bistable conditions for low-temperature silicon epitaxy, Appl. Phys. Lett., 1990, 1034, 57					
æ		J.W. LYDING, TC SHEN, J.S. HUBACEK, J.R. TUCKER, and G.C. ABELN, Nanoscale patterning and oxidation of H-passivated Si(100)-2x1 surfaces with an ultrahigh vacuum scanning tunneling microscope, Appl. Phys. Lett., 1994, 2010, 64					
@		TC SHEN, C. WANG, G.C. ABELN, J.R. TUCKER, J.W. LYDING, PH. AVOURIS, and R.E. WALKUP, Atomic-scale desorption through electronic and vibrational excitation mechanisms, Science, 1995, 1590, 268					
œ		J.W. LYDING, UHV STM nanofabrication: progress, technology spin-offs, and challenges, Proceedings of the IEEE, 1997, 589, 85					
@		TC. SHEN, C. WANG, and J.R. TUCKER, Al nucleation on monohydride and bare Si (001) surfaces: atomic scale patterning, Phys. Rev. Lett., 1997, 1271, 78					

1	Examiner	Collen & Rol	Date Considered	06/18/06
- 1	Signature			

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Substit	tute for form 1449B/PTC	)		Application Number	10/822,345	
INE	OPMATION	ום ג	SCLOSURE	Filing Date	April 12, 2004	
			PPLICANT	First Named Inventor	Meng Tao	
317	A I EMIEM I	<i>3</i>	AT LIOAN	Group Art Unit	2812	
	(use as many sh	eets as	necessary)	Examiner Name	Not Yet Assigned	
Sheet	2 .	of	2	Attorney Docket Number	124263-1019	

	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examir@ite Initials No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	Τ2
æ	I. LYUBINETSKY, Z. DOHNALEK, W.J. CHOYKE, and J.T. YATES, JR., Cl <sub>2</sub> dissociation on Si(100)-(2x1): A statistical study by scanning tunneling microscopy, Phys. Rev. B, 1998, 7950, 58	
œ	M. CHANDER, Y.Z. LI, D. RIOUX, and J.H. WEAVER, Patterning of Si(100): Spontaneous etching with Br <sub>2</sub> , Phys. Rev. Lett., 1993, 4154, 71	
œ	The National Technology Roadmap for Semiconductors, Semiconductor Industry Association, 1997	
(CO)	A. M. COWLEY, S. M. SZE, Surface States and Barrier Height of Metal- Semiconductor Systems, J. Appl. Phys, 1965, 3212-3220, 36	
0	J. P. LACHARME, N. BENAZZI, C. A. SEBENNE, Compositional and electronic properties of Si(001)2X1 upon diatomic sulfur interaction, Surf. Sci., 1999, 415-419, 433-435	
(P)	A. C. PAPAGEORGOPOULOS, M. KAMARATOS, Adsorption and desorption of Se on Si(100)2X1: surface restoration, Surf. Sci., 1999, 415-419, 433-435	
œ	MICHAELSON, HERBERT B., The work function of the elements and its periodicity, J. Appl. Phys., 1977, 4729-33, 48	
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 1

Complete If Known				
Application Number	10/822,345			
Filing Date	April 12, 2004			
First Named Inventor	Meng TAO			
Art Unit	2813			
Examiner Name	-Unknown Collean E. Rodgers			
Attorney Docket Number	124263-1019			

U. S. PATENT DOCUMENTS							
Examiner Initial	Cite No.¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures		
	<b>↓</b>	Number-Kind Code 2 of knowns			Appear		
(ce)		5,760,462	06-02-1998	Barron et al			
(Ce)		5,943,568	08-24-1999	Fujii et al			
(IP)		6,483,172	11-19-2002	Cote et al			
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